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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/708,516	11/09/2000	Ikuo Sakaguchi	ND-363US	1745
30743	7590	12/04/2003	EXAMINER	
WHITHAM, CURTIS & CHRISTOFFERSON, P.C. 11491 SUNSET HILLS ROAD SUITE 340 RESTON, VA 20190			GESESSE, TILAHUN	
			ART UNIT	PAPER NUMBER
			2684	11

DATE MAILED: 12/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/708,516	Applicant(s) SAKAGUCHI, IKUO	
	Examiner Tilahun B Gesesse	Art Unit 2684	
	-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --		

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on ____.

2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-8 is/are pending in the application.

4a) Of the above claim(s) ____ is/are withdrawn from consideration.

5) ☐ Claim(s) ____ is/are allowed.

6) ☒ Claim(s) 1-7 is/are rejected.

7) ☒ Claim(s) 8 is/are objected to.

8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 a) ☐ The translation of the foreign language provisional application has been received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9.

4) ☐ Interview Summary (PTO-413) Paper No(s). ____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1 and 3 are rejected under 35 U.S.C. 102(a) as being anticipated by Cina et al "Cina" (5,937,348).

As to claim 1, Cina discloses portable telephone radio set (a remote unit 30 and 32) with an interference detection function (61) to which a terminal equipment can be externally connected to effect data communication therewith (figures 3 and 4), comprising: a warning section (61) for warning radio wave interference by audio or video signals (column 4, lines 13-36 and figure 4), and a control circuit section (micro-controller 52) for detecting interference of radio waves and controlling said warning section (column 4 lines 34-36) said control circuit section (52) reporting, when said control circuit section detects a radio wave interference fault ,contents of the fault to said warning section (61) so that said warning section may give a warning of radio wave interference (RSSI) in a predetermined form based on at least one of visibility or audibility (column 4, lines 13-36 and figure 4).

As to claim 3, Cina discloses the control circuit section detects a radio wave interference fault in the course of a zone switching operation which is caused by the

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presence of a channel having a higher reception level than that of the channel being waited from that at least one of unfavorable reception of broadcast information and interruption of radio waves occurs in a condition of abandonment of the pertaining channel (column 4, lines 13-36 and figure 4).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2,5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cina in view Takahara.

As to claim 2, Cina disclose the control circuit section (52) detects a radio wave interference fault (column 4 lines 34-36). Cina does not expressly teach selection operation of a standby channel from at least one of unfavorable reception of broadcast information and interruption of radio waves occurs in either one of conditions out of zone indication and abandonment of the pertaining channel.

However, Takahara discloses selection operation of a standby channel from at least one of unfavorable reception of broadcast information and interruption of radio waves occurs in either one of conditions out of zone indication and abandonment of the pertaining channel (col. 12 line 66-col.13, line 18 and fig.2).

Since Cina, in the similar field of invention, discloses regions or zones of poor

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signal strength , dead zone or hostile zone to radio frequency (column 4, lines 23-26).

Then, it would have been obvious to one of ordinary skill in the art at the time of inventions was made to combine Cina and Takahara in detecting weak or interfering signals and alert the user, as taught by Takahara, in order to conserve time and power by attempting to dial or make a call while the portable phone is in a region where there is not good signal reception

As to claim 5, Cina discloses control circuit section (52) detects a radio wave interference fault during communication(column 4 lines 34-36).

Cina does not expressly disclose the channel is switched to a channel of a level lower than the level of the channel which has been used for communication till then, it is a cause of the channel switching that at least one of interruption of radio waves occurs.

However, Takahara discloses the channel is switched to a channel of a level lower than the level of the channel which has been used for communication till then, it is a cause of the channel switching that at least one of interruption of radio waves occurs (col.13 , line 65-col. 14 line 40 and fig.3).

Since Cina, in the similar field of invention, discloses regions or zones of poor signal strength , dead zone or hostile zone to radio frequency (column 4, lines 23-26). Then , it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Cina and Takahara in switching channels based on channel strength , as taught by Takahara, in order to avoid interruption of the communication taking place at the particular instant of time.

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5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cina in view of Takahara as applied to claims 1-3, and 5 above, and further in view of Hasegawa (6,073,024).

As to claim 4, Cina and Takahara everything as explained above, except the level of each of perch channels is measured, is higher than a predetermined threshold value.

However, Hasegawa discloses the level of each of perch channels is measured, is higher than a predetermined threshold (col.19 lines 19-29 and fig. 14).

Since both art are combating the frequent retransmission upon the communication is disabled and warn the user that communication is disable due to signal strength is below minimum threshold. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Cina and Takahara in measuring perch channels detected, as taught by Hasegawa, in order to retrieve by scanning perch channels with higher signal strength to communicate at specific time and location.

5. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cina in view of Takahara as applied to claims 1-3,5 above, and further in view of Matsumoto (6,556,822).

As to claim 6, Cina and Takahara do not disclose displaying the abandoned channel number.

However, Matsumoto discloses the display device 24 displays signals including warning which informs the user that the digital cordless telephone is out of service area

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and a number of sample signals or bars "channel numbers" with lower signal strength (interfering channels) and eventually disappear (col. 5, lines 5-19 and fig. 3A-3D).

Since all prior art, in the similar field endeavor, in detecting and measuring signal strength for future usage, therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to improve Cina and Takahara by warning ahead of time, as taught by Matsumoto, in order to avoid all of a sudden terminating communication, retransmitting and dialing attempt that the user make to panic.

As to claims 7, Cina and Takahara do not specifically disclose the number of occurrences of retransmission per unit time measured during the communication.

However, Matsumoto discloses the number of failure of reconnecting for certain time (column 2 lines 55-68 and fig.4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify Cina and Takahara in warning the user based on number of failure "occurrence", as taught by Matsumoto, in order to avoid sudden terminating a communication under progress.

Allowable Subject Matter

6. Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art fail to teach the feature "a radio wave warning is displayed including

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a rate of occurrences of retransmission per unit data measured during the communication”.

Response to Arguments

7. Applicant's arguments with respect to claims 1-7 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


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Coverdale et al disclose portable telephone radio set (fig.1) with an interference detection function (25 and 70) to which a PSTN "terminal equipment" can be externally connected to effect data communication therewith (col. 3 lines 23-28 ,col.5 lines 37-40 and figs. 1 and 5), a warning section (60) for warning radio wave interference (col.2 lines 1-12 and fig.1), and a control circuit section (70) for detecting interference of radio waves and controlling said warning section (col. 3 lines 30-36 and fig.1) said control circuit section (60) reporting, when said control circuit section detects a radio wave interference fault (col.3 lines 23-33 and fig.1),contents of the fault to said warning section so that said warning section may give a warning of radio wave interference in a predetermined form based on at least one of visibility and audibility (col.2 lines 1-12).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tilahun B Gesesse whose telephone number is 703-308-5873. The examiner can normally be reached on flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 703-308-7745. The fax phone number for the organization where this application or proceeding is assigned is 703-308-6306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.


NAY MAUNG
SUPERVISORY PATENT EXAMINER

TBG

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November 21, 2003

